

providing graphite powder having a particle size equal to or smaller than 100 μm ; and

treating the graphite powder such that the treated graphite powder has a fraction of hexagonal structure of at least 80% by weight.

REMARKS

Applicants have amended their claims in order to further clarify various aspects of the present invention. Specifically, claim 1 has been amended to delete the graphitizing step, and to recite pulverizing raw graphite. Claims 5 and 23 have been similarly amended. Claims 2 and 3 have respectively been amended to recite heat treatment temperatures of at least 900°C and at least 2700°C. Claims 15, 19, 20 and 21 have been amended to recite that the electrodes are laminated with graphite for a positive electrode and with a lithium group oxide for a negative electrode; and to recite pulverizing, rather than granulating, the graphite to graphite powder. In addition, claims 25-27 have been amended to recite a non-aqueous secondary battery.

Moreover, Applicants have added new claims 28-36 to the application. Claims 28 and 29, dependent respectively on claims 2 and 3, recite the ranges for the heat treatment temperatures previously recited in original claims 2 and 3, respectively.

Claim 30 defines a method for manufacturing graphite powder, comprising steps of providing a graphite powder having a specified particle size; and heating the graphite powder as

a heat treatment, or immersing the graphite powder into an acidic solution as an immersing treatment, to form treated graphite powder, the treated graphite powder having a fraction of a hexagonal structure of at least 80% by weight. Claims 31 and 32, dependent respectively on claims 30 and 31, respectively recite that the graphite powder has a fraction of a hexagonal structure of at least 90% by weight, and that the graphite powder has a fraction of a rhombohedral structure of at most 10% by weight. Claims 33 and 34, each dependent on claim 30, respectively recite that the graphite powder has a fraction of a rhombohedral structure of at most 20% by weight; and recites that the graphite powder is provided by pulverizing raw graphite, that the graphite powder is heated to form the treated graphite powder, and that after the heating, the graphite powder is further heat-treated, at a higher temperature than the temperature of the heating recited in claim 30, for eliminating impurities.

Independent claim 35 defines a method for manufacturing graphite powder, including providing graphite powder having a specified particle size; and heating the graphite powder as a heat treatment, or immersing this powder into an acidic solution as an immersing treatment, to form treated graphite powder, such that the treated graphite powder has a fraction of a rhombohedral structure of at most 20% by weight. Claims 36 and 37, each dependent on claim 35, respectively recites that the treated graphite powder has a fraction of rhombohedral structure of at most 10% by weight; and recites the same subject matter expressly set forth in claim 34.

New independent claim 38 recites a method for manufacturing graphite powder, including providing graphite powder having a specified particle size; and treating the graphite powder such that the treated graphite powder has a fraction of a rhombohedral structure of at most 20% by weight. Claim 39 corresponds to claim 38, but recites that in the treatment of the graphite powder, the graphite powder is treated such that the treated graphite powder has a fraction of a hexagonal structure of at least 80% by weight.

The modified requirement for restriction set forth in the Office Action mailed December 8, 2000, is noted. Applicants again elect the Group I claims, claims 1-4, which the Examiner contends is drawn to a first method for making graphite powder. As indicated in the Office Action mailed December 8, 2000, it is to be noted that claim 23 will be examined with the Group I claims; and, moreover, as indicated in the prior Office Action mailed August 31, 2000, claims 7-9 will be examined along with the appropriate group.

In addition, it is respectfully submitted that newly added claims 28-39 are all directed to a method for manufacturing graphite powder, and all read on Group I; and it is respectfully submitted that all of claims 28-39 should be considered on the merits in the above-identified application.

Applicants maintain their traverse of the restriction requirement, for the reasons as set forth in the Amendment filed October 2, 2000, and, in addition, in light of the following reasons. Applicants respectfully direct attention to claims 38 and 39, reciting the treatment of the graphite

powder to provide the graphite powder to have the requisite minimum hexagonal structure (or maximum rhombohedral structure). In light of claims 38 and 39, as well as from, for example, claim 23, and the description in the specification, it is respectfully submitted that the present application contains claims generic to the subject matter of the Group I claims and the Group II claims. Moreover, as is clear from claims 38 and 39, and also from, for example, claim 23, and as is clear from Applicants' specification, the immersing treatment and heat treatment have the same object to obtain the hexagonal crystalline structure. Accordingly, it is respectfully submitted that at least the Group I and Group II claims should be considered together in the present application.

Furthermore, the claims of Groups IV-VII, which claim secondary batteries, and methods of making such batteries, are defined in terms of manufacturing methods of graphite, as claimed in Groups I and II. Note, especially, claims 20-22, of groups VI and VII, which recite processing steps of the claims of Groups I and II. Particularly in view thereof, it is respectfully submitted that all of the present claims can be regarded as a unified group, and that all of the presently pending claims should be considered on the merits in the present application. See *Manual of Patent Examining Procedure* 803. At the least, claims 20-22 of Groups VI and VII should be considered with the claims of Groups I and II.

In view of all of the foregoing, reconsideration and withdrawal of the requirement for restriction set forth in the

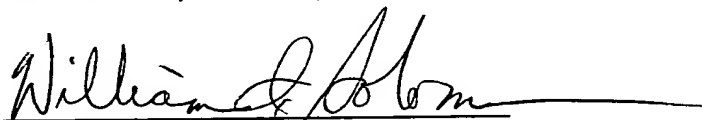
Office Action mailed August 31, 2000, as modified in the Office Action mailed December 8, 2000, and examination and allowance of all claims remaining in the application, are respectfully requested. At least all claims of Groups I, II, VI and VII should be considered on the merits in the present application.

In any event, Applicants respectfully elect the Group I claims for prosecution on the merits in the present application, and respectfully submit that the claims to be considered on the merits are claims 1-4, 7-9 as appropriate, 23 and 28-39, and examination and allowance of at least the Group I claims (and, upon allowance of the Group I claims, including claim 23, allowance also of the Group II claims), in due course, are respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 CFR § 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to the Deposit Account No. 01-2135 (Case No. 503.34465VC3) and please credit any excess fees to such Deposit Account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

A handwritten signature in dark ink, appearing to read "William I. Solomon", is written over a horizontal line.

William I. Solomon
Registration No. 28,565

WIS:alw
(703) 312-6600